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EDITORIAL



Amateur Operator's Certificate of Proficiency

The aim of the majority of persons interested in Amateur Radio is to obtain an Amateur Operator's Certificate of Proficiency, be they young or old.

The fascination of Amateur Radio as a hobby is intense. Its appeal is stronger than the Lorelei, and in some instances has the same disastrous results, therefore it behoves each of its adherents to temper the hobby with moderation. Make it your hobby not your MASTER.

The return and enjoyment you receive from being an Amateur is like all other hobbies. It depends on how much you put into it, not so much the financial side, but your interest and activities in its administrative and social affairs.

To obtain that coveted A.O.C.P. study is necessary, whether be it at home, one of the Institute's Divisional Classes, a local Radio Club, or a Commercial College.

In the case of group instruction you receive only a limited number of hours' tuition per week. During the period of the course you will realise that the total number of hours involved amount to so many days or weeks full time. Say to yourself, "Am I capable of absorbing and retaining the knowledge gained in this short space of time?" If the answer is NO, you will soon realise that home study to supplement the group instruction is essential, therefore, set your course along those lines. Self discipline is a MUST if you expect to be successful.

The Ham fraternity is world wide and no matter where you travel the same cordial welcome awaits you.

A visit to any of the local Ham shacks will give you an insight into how the Amateur builds, utilises and maintains his station equipment. Your interesting visit may begin a very fine friendship, the help of which could guide your future progress along the "Road to Hamdom" and assist you to reach your goal—"the A.O.C.P. and Station Licence."

The examination for an Amateur Operator's Certificate of Proficiency is conducted by the Wireless Branch of the Postmaster General's Department on the second Tuesday of the months of January, April, July, and October of each year.

The examination is divided into three sections, viz.:-

(1) The transmission and reception of Morse code at a speed of 14 words per minute.

(2) Regulations as laid down in the "Handbook for the Guidance of Amateur Station Licensees" issued by the P.M.G.'s Department.

(3) Elementary knowledge of the theory and principles of transmission and reception of radio.

Since World War II the Amateur has been licensed to use new techniques in the fields of transmission and reception. This privilege calls for the use of equipment of a design entirely new to the average Amateur. The P.M.G.'s Department, therefore, has insisted that each new station licensee shall have a very elementary knowledge of these subjects. Likewise the syllabus of lectures for A.O.C.P. Students has been enlarged to cover the following subjects:-

- (1) Frequency and Phase Modulation (n.b.f.m., p.m.),
- (2) Pulse Transmissions,
- (3) Single Sideband Reduced Carrier (s.s.r.c. or s.s.s.c.).

Morse code is something you cannot learn merely by reading a book. All reading will give you is the basic idea of the code and how to learn it. To become proficient, it requires proper tuition and plenty of practice.

The most satisfactory system of teaching Morse code is where the characters are sent at approximately 16 words per minute, but the spacing between characters is long. As the student progresses, the spacing is reduced until the practice messages or cypher groups are sent at the speed of 16 words per minute. During the period of tuition the student has learnt to recognise the rhythmic sound of the characters at 16 words per minute, therefore, at the spacing is reduced he has little difficulty in increasing his speed.

Summarising the foregoing, it is very evident that time must be made available each day for study purposes. Make this rule and adhere to it strictly. Nothing is harder to break than a habit, so create a habit of studying. Piecemeal attempts at study may eventually get you your "ticket"—but you may be too old to enjoy being a Ham for long.

FEDERAL EXECUTIVE.

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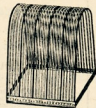
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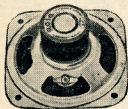
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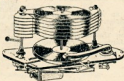
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HOW TO USE DRY RECTIFIERS

BY HANS J. ALBRECHT,* VK3AHH

Dry Rectifiers of all sizes and types are now available in surplus shops. It is often not realised what highly valuable components can thus be obtained at a reasonable price. And, on the other hand, rectifiers of this kind have advantages compared with the ordinary valve rectifiers. The following information should help the Ham who wants to use them in a proper way.

HOW A DRY RECTIFIER WORKS

The fundamental principle as discovered by Braun, 1874, holds for all types of dry rectifiers, including crystal diodes which are, however, not dealt with in this article.

Some metals touching a semi-conductor produce at the point of contact a resistance which depends upon the direction of the current flowing through that contact, i.e., a high resistance (about 100,000 ohms) exists in one direction and a low resistance (in the order of 5 ohms) in the other one. Such a contact can therefore be used for rectification of an alternating current.

There are quite a number of possible pairs of metals and semi-conductors, but the following two combinations are most commonly used:—

- Iron (metal)—Selenium (semi-conductor).
- Copper (metal)—Cuprous Oxide (semi-conductor).

They are called selenium rectifiers and copper oxide rectifiers, respectively.

The principle is illustrated by Fig. 1 where M represents the metal, S the semi-conductor, and C the counter-electrode. Such a single unit is called a "cell."



Fig. 1.

GENERAL CONSIDERATIONS

The actual rectifier consists of a number of cells connected in series. For any calculation regarding the use of those rectifiers always remember:—

- Voltage to be rectified depends upon the number of cells connected in series.
- Current to be rectified depends upon the cross-section of the plates.

The maximum current depends upon the heat developed in the cell. Dry rectifiers work usually with better efficiency at higher temperatures, but as just mentioned, temperatures must not exceed the data given, so that a safe action and finally the life of the rectifier is not endangered. It is natural that a rectifier mounted in a free position, e.g., on the chassis, can stand more current than one inside the chassis.

The maximum current density is usually about 50 Ma. per square-centimeter, i.e. 320 Ma. per square-inch.

The temperature of a single cell should not exceed 50°C., i.e. 122°F.

In practice dry rectifiers can be overloaded and even short-circuited for a short period, for the increase in temperature follows only slowly.

The single selenium cell can rectify up to 15 volts, but breaks down at 16 volts. For that reason it is usual practice to operate a rectifier of such a kind with about 13 volts per cell. A copper oxide cell is capable to rectify no more than about 20 volts.

All dry rectifiers have an infinite lifetime if the maximum data given are not exceeded. The only thing which can happen after some thousand hours of operation is an increase in the internal resistance, but mostly there is no noticeable change in efficiency even after a much longer period.

Usually a selenium rectifier is safer regarding long periods of operation, while copper oxide rectifiers may produce some head-aches after some years. As an example, one particular selenium rectifier for 300 volts and 500 Ma. has been used by the writer since 1947 and still operates very well connected in series with a similar one for rectification of the transmitter's power supply (750 volts at 100 Ma.).

The efficiency of a dry rectifier depends upon the load as illustrated in Fig. 2.

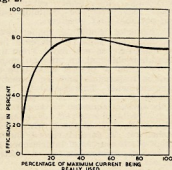


Fig. 2.

PRACTICAL USE

You can use the dry rectifier wherever you would use an ordinary valve rectifier. The advantages of the former are:—

- (1) Unlimited time of operation;
- (2) No filament requirements;
- (3) Good efficiency;
- (4) Insensibility to rough mechanical or electrical treatment.

One disadvantage must be mentioned. The ripple voltage is slightly larger than that of an ordinary valve rectifier because a very small current flows in the direction of high resistance. This can easily be overcome by a small increase in filter capacity or filter inductance.

It is always advisable to by-pass the dry rectifier for r.f., e.g. by a condenser of about 0.1 to 0.001 μ F. The condenser is not shown in the circuit diagrams.

Fig. 3 shows the simplest high-tension power supply without transformer. Half-wave rectification is obtained.

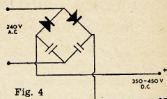


Fig. 4.

Fig. 4 gives the circuit of the voltage-doubler method using dry rectifiers. Again a transformer has not necessarily to be used; the filter circuit is not shown.

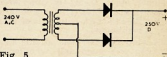


Fig. 5.

Fig. 5 shows the well-known full-wave rectification with dry rectifiers. The filter circuit is not shown.

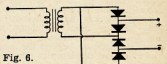


Fig. 6.

Fig. 6 shows dry rectifiers in bridge circuit used for charging batteries. The secondary winding of the transformer has to supply a voltage which is slightly higher than the d.c. voltage wanted.

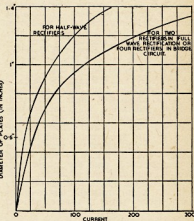


Fig. 7.

The graphs in Figs. 7 and 8 are based upon experience and may serve as a guide for anyone who intends to use dry rectifiers. They show the diameter of the plates (in inches) against the current.

(Continued on Page 5)

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TELEVISION MADE EASY

Part viii. Continued—

Interference, and How the Hams Can Check It

BY KEN WALL† AND JOHN JARMAN,* VK3ADA

Awakening from our day-dream, we now begin to wonder why this subject should even concern a VK, when we have no television service in this country.

Now this is just where we have the advantage. Prevention is better than cure and the time that elapses before the opening of Australia's first television station will give the Ham an ideal opportunity to not only "smarten up" his own transmitter, but also help to eliminate other forms of interference in his location. This will be a long job, and the time to start, believe it or otherwise, is right now!

But what can be done at this stage? How can one even tell whether his transmitter will cause interference? Now the ideal test would be to build a small television receiver and instal it complete with aerial system close to the Ham shack. The circuits and building constructions for such receivers are published in some magazines, and probably many readers have already attempted building them. Although this scheme is very educational, however, we appreciate that it's beyond the means of most Hams, so this simpler scheme is suggested:

Our aim is to eliminate spurious emissions, on frequencies within the television band, viz., 180-204 Mc. Suppose we build, borrow, or otherwise acquire a v.h.f. receiver to cover this band, or at least, a substantial portion thereof. If our rig is giving out signals in this band, it should surely detect them. With our test receiver installed close to the Ham shack, set at maximum sensitivity, and using the best available aerial system, an assistant is now engaged to carefully tune this receiver over its entire range, while test transmissions are made on our rig.

Admittedly, this test may not be completely infallible, since there are some emissions which will affect a television receiver, but which may not produce any audible output in our test receiver. This test will, however, show up the worst part of the trouble and in any case, if the rig under test produces an audible signal, it's a sure bet that it will also cause t.v.i. and the precautions taken to eliminate the emissions causing this audible output will usually also eliminate those which the test receiver cannot detect. Using this same receiver, we can now test each domestic electrical appliance in the same way, not forgetting the car or motor cycle.

Finally comes the question of other interference in the locality. Listening watches should be kept regularly and all audible interference carefully tabulated, noting for each noise the time

of day, frequencies where heard, repetition frequency (where applicable) and if possible, a description of the nature of the sound.

Note, by the way, that this test can be performed by any reader even if he is not a licensed Ham, since it involves listening only and no transmission.

The actual location of each source of interference may involve quite a lot of inquiries, and general investigation around the district. True enough, the Ham has no authority to forbid people to use interfering appliances, but is it any offence to politely remind them that they have appliances needing repair. A little tactful explanation will bring the co-operation of a surprising majority, and the remainder will change their tune in their own interests when television is established.

A directional aerial system will naturally help in locating these sources of interference, and some enthusiastic readers may even be contemplating using portable v.h.f. receivers.

No inquiries should be made, however, until the same interference has been logged for several days. From the information obtained, an attempt should first be made to predict what type of device is responsible and the probable owner contacted. This should be done while the interference is in progress, and the owner requested to temporarily switch the appliance off, or alternatively, notify by telephone when it is switched off. A careful record should be kept of all sources of interference in the locality, preferably on a sketch map, for future reference.

So much for locating the interference. How can it be corrected? Well, as for electrical appliances, different devices require different treatment, and are best dealt with by a licensed electrician, who should be familiar with the appropriate methods, in co-operation with the Ham who will check this electrician's results, with his v.h.f. receiver.

We are chiefly concerned, however, with the elimination of spurious emissions from our own transmitter. Now this is largely a matter of individual experiment, but the following hints may be helpful.

First of all ascertain whether the emissions are harmonics or parasites, by noting their frequencies. If harmonics, follow the sequence to find out where they are being generated.

- Disconnect the plate voltage from the output stage. If the same emission still persists, go back stage by stage, until the offending circuit is found. Subsequently, the offending component can be isolated.

- On the other hand, if the interference disappears, when the output stage is made inoperative, disconnect the aerial and tune up on a dummy load. If the emission disappears, the aerial

system must be dealt with, and suitable stubs in the feed line will often do the trick.

- If the emission persists, try shielding the dummy load.

Next look for other "channels" for radiation. Using a suitable detector, test for r.f. on the power lines, h.t. leads, panel leads, etc. Remember around 200 Mc. even a very short lead makes an effective radiator.

It should be noted that harmonics can not always be completely eliminated, but they must be sufficiently attenuated to prevent t.v.i.

Now parasites, on the other hand, can be eliminated completely, and their causes can usually be traced if each stage be tested as follows:

1. Remove plate power from all stages and remove filament power from all except the stage being tested.
2. Temporarily apply plate voltage to this stage, having first increased the negative bias for safety, if necessary.
3. Test for parasites by either grid current, a neon-bulb indicator (applied to each terminal of valve), or abnormal plate current (compared with data sheets).

Beware also of cases where spurious oscillations momentarily occur only when transmitter is keyed or modulated. The shape of keying impulses requires close attention. Each dot or dash (if graphed) should have a sloping leading and trailing edge, with a reasonably rounded top.

In all cases, however, the actual cure for the trouble will be a matter of individual experiment, different transmitters requiring different treatment. Many rigs will require complete rebuilding, and a certain quality which has hitherto been a feature of most experimental transmitters, namely, accessibility, will often have to be sacrificed. In other words, it is seldom possible to build a transmitter that won't cause t.v.i., but still keep its components accessible for modification, as we like to do.

Disheartening as this sounds, however, it is purely a sign of progress and will probably result in the production of much better quality Ham transmitters, just like the time when our "forerunners" had to "dice" their robust spark transmitters for more precise equipment.

Some valuable hints on prevention of t.v.i. should be available from our American colleagues and here's where our DX enthusiasts can help. Those who obtain any useful tips on the subject should arrange with the Technical Editor of this magazine to have them published.

We see, therefore, that the prevention of t.v.i. is not just a matter of individual care, but demands a coordinated effort, necessitating the utmost co-operation between Hams themselves, and mutual understanding between Hams and the general public.

It should now be apparent why so much theory was covered in the series, before the actual subject of interference was dealt with. In short, one cannot cure

† 172 Johnson Street, Maffra, Victoria.
* A11426 L.A.C. Jarman, J. B., c/o A.R.D.U., R.A.A.F., Woomera S., South Australia.

t.v.i. without first knowing how a television set works.

It must be emphasised, however, that television is making very rapid progress and even while these articles were awaiting publication, further important developments have been made. For this reason this series has been intentionally written to deal with only the basic principles which would not appreciably change, as television progressed, with the intention of helping the Ham to understand the more advanced television articles published frequently in current magazines.

Readers should take every opportunity to study this literature, and keep up to date with television's latest developments.

Photographs of the patterns produced by the various forms of interference are quite often published, and it is not a bad plan to keep these photos filed for future reference.

Remember, the Ham can't learn too much about television.

One final tip: If you must transmit during television programmes, use only a rig that has been previously tested, and proved free from interfering emissions. If you suspect your rig of causing t.v.i., play safe and use it only between television programmes, using the latter periods for maintenance, etc.

The same applies of course to any electrical appliance and as far as practicable to any motor vehicle that causes t.v.i. Next month our final instalment will deal with colour television. Meanwhile, put this article in a safe place for future reference, and keep those queries rolling in to VK3ADA.

— . . . —

HOW TO USE DRY RECTIFIERS

(Continued from Page 3)

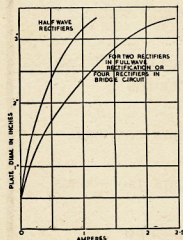


Fig. 8.

The theoretical side of dry rectification has been purposely neglected in this article. If the general interest for a treatment of the theory exists, the writer will always be pleased to deal with it in a further article. Furthermore, the writer will be glad to supply any further information on dry rectifiers, if possible.

THE 8PO AERIAL

Here is a comment from G6CJ on the article by VK3BG on the G8PO aerial. We feel his finding and opinions on this matter are sufficiently illuminating to readers to warrant its inclusion in the magazine.

In the January, 1952, issue of "Amateur Radio," VK3BG has probably come as near as matters to a working specification of the 8PO aerial. The theory of it is quite simple, up to a point; all you have to do is to get equal currents in the correct relative phase in the two radiators, and it cannot fail.

It is the complex feeder adjustments necessary to produce this state of affairs coupled with the fact that people so seldom stick to working instructions, which have caused so much argument and so much disappointment.

The feed problem is always complex when two coupled aerials are in some arbitrary phase relation, and not zero or half-cycle. In the 8PO the phase is 3/8 cycle, and if you calculate the impedances of the two elements you find they are unequal, that is to say, the two wires do not contribute equally to the radiation. In theory they come to about 30 and 25 ohms; in practice, allowing for surroundings, they may have other values, and VK3BG's figure of 40 ohms may well be good enough.

However, if you reverse one feed, the impedances come to new values, over 100 ohms, and hence it is better to reverse direction by transferring the main line to the other end of the 1/8 wave jumper, rather than to reverse one of the branch lines which is what was so often done.

We have published a number of articles on it over here in England, and there has been a good deal of argument and many unsuccessful attempts to get one going. There is no doubt, however, that it is a powerful little unit, and if users will stick to some arrangement which has been made to work correctly, keeping to the right types and lengths of feeders, as for example, those offered by Roth Jones, VK3BG, they will be successful.

TRADE NEWS

On the 1st May, 1952, Philips Electrical Industries of Australia Pty. Ltd. shortened the title of the Company. The correct name is now Philips Electrical Industries Pty. Ltd.

BOOK REVIEW.

Philips' "Radio and Television Manual"

We have received from Philips Electrical Industries Pty. Ltd. a copy of their new publication, Philips' "Radio and Television Manual," price \$9/6.

This manual of 776 pages contains just about everything the Serviceman, Engineer, Amateur and Student could possibly need in the way of information. It is divided into seven sections as follows: (1) Broadcast Reception—theory of the receivers; (2) Broadcast Receiver Technique—receivers and amplifiers in very great detail with special emphasis on the servicing angle, including power supplies of all types; (3)

National Field Day, 1951, Results

This year twelve logs were received, although from a perusal of the logs it would appear that a considerably greater number took part and operated during the Field Day. It is to be hoped that next year the contest will be better supported, otherwise it seems hardly worth continuing.

The Open Section was won by VK2ASW/P, operating from Mt. Colah, near Sydney. The operators were B. White VK4AAB, S. Gurr VK5RG, and D. Pollard VK2ASW. The transmitter ran 20 watts input to an 807, modulated by a Class B 6N7. Power was from three 400 volt generators.

VK4HR/P won the C.W. Section with 15 watts to an 828. Tibby was assisted by VK4RL and they operated on 7, 14, 28 and 50 Mc. from Maroochydore, Queensland.

The Phone Section was won by VK4KS/P, of DX Contest fame, helped by W. Young VK4YA. A vibrator supplied the power to a 1625 modulated by a Class B 6N7.

Dipoles were most popular on all bands. Check logs were received from VK4AW and from B.E.R.S.-196 to whom our thanks go. Contestants complained of the lack of co-operation from home stations who were busy chasing DX. Let's give the portable boys a hand next year.

OPEN SECTION		Bands	Contacts	Bonus	Pts.
Call Sign					
VK2ASW/P	...	2	60	75	259
VK4AAB/P	...	2	45	50	180
VK4HR/P	...	4	33	75	182
VK7SR/P	...	1	30	25	115
VK2AW/P	...	2	10	25	85
VK3JO/P	...	2	8	...	44

C.W. SECTION		Bands	Contacts	Bonus	Pts.
Call Sign					
VK4HR/P	...	2	10	75	120
VK2AAH/P	...	2	10	50	77
VK7SR/P	...	1	11	25	69

PHONE SECTION		Bands	Contacts	Bonus	Pts.
Call Sign					
VK4KS/P	...	2	69	50	224
VK4TN/P	...	2	73	25	171
VK3AAL/P	...	2	35	25	111
VK3LN/P	...	2	36	25	117
VK3ALO/P	...	2	37	...	104
VK2AM/P	...	2	31	...	87
VK2RK/P	...	1	11	...	86

CHANGE OF ADDRESS

W.I.A. members are requested to promptly notify any change of address to their Divisional Secretary, not direct to "Amateur Radio."

URGENTLY REQUIRED

The Mobile Radio Unit of the Flying Doctor Service in Queensland urgently wish to obtain a manual of the ART Receiver. Their own was destroyed in a recent bush fire.

If anyone can help, would they air mail it to P.O. Georgetown, North Queensland, together with the cost.

Components, aeriels and transmission lines, valves and amplifiers, oscillators, ultra high frequencies, frequency modulation, pulse modulation, acoustics; (4) Service to Radio Receivers; (5) Technical Formulae, Tables and Charts; (6) Mathematical Formulae and Tables; (7) Valve Data.

It is impossible to adequately list all the subjects covered in the above sections, but the few listed will give some idea of the ground covered.

A television appendix of 60 pages gives the theory, and possible servicing troubles which will be encountered when television finally arrives.

All in all, this book is a must for everyone who has anything at all to do with radio, be it from the engineering, servicing or experimental angle.

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- SPORTS TROUSERINGS
- WOOL TOPS

FIFTY MEGACYCLES AND ABOVE

Compiled by J. K. RIDGWAY, VK3CR.

The 288 Mc. band, which has been rather badly neglected for some time, has been rather active lately, with a group of enthusiastic VK5 operators in the persons of SMT, SKC and SRO who have established an Australian record of 160 miles in making a portable expedition during Easter, 1952. Here is the story in the words of SRO (Collin Moore).

During the Easter break, SMT/SKC went to Carleton Place, 289 ft., and SRO to Kulpura, 600 ft. Both set-ups were running 7 and 8 Mc. The 7 Mc. set-up, which looks very good on paper, but owing to poor weather conditions (rain and wind), the job was not "push over". However, after testing for some 24 hours, SRO's 288 Mc. signals were finally heard at 9.30 a.m. on Sunday, 13th. A two-way contact was then established, SRO to SMT/SKC with signals running up to strength five, with heavy QSB. The distance was 106 miles, which we think is the Australian record for 288 Mc. SMT/SKC then shifted QTR to Sellick's Hill, 500 ft., and established contact with SRO, signals being very good ST; distance was then 94 miles. SMT/SKC also contacted SRO who is a new licensee. The distance being 33 miles.

Equipment used: SMT/SKC, 15 watts to p.p. V1313, 20 ft. VYKQZ, 20 ft. VYKQZ, 20 ft. VYKQZ, 16 element vertical beam; 955 sup. rec. receiver. SRO, 15 watts to 7193 mod. x.c. transmitter, 50 ft. in antenna, antenna 3 x 3 beam vertical; rot switched down to receiver; 955 sup. rec. receiver.

NOTES BY VK4QL*

For the period that I have been compiling these notes, this month becomes the hardest to get enough material to make an interesting way, all bands have been flat, whether you wanted to work DX or VK. Reports from the 288 Mc. band, which is in high gear, are not coming in. There has been a small difference in some respects in what VK2 has been hearing or working against the rest. 7RK reckons that VK2 may be a different country, then he might do better.

The band survey, stations worked * and times in G.M.T. (Z time) shows:-
3.5 Mc. This band is not as hot as other than 7RK and myself, and we both agree that there has been nothing worth while going up there for. Except for one K16, only VK and ZL were heard and poorly at that.

7 Mc. This band seems to have passed its peak. The great VK activity that was heard over the last couple of months has died, which is a fair indication of the way the band has gone off. The mornings produced very little contact, but the 10.00-11.00, operating from the Trobriands, has given many a new country. Bob agrees with me, and as so many found during the war, that the YLs of the Trobriands are the prettiest of those to be found in the Pacific Islands. 2TG, using a vee beam, has been hearing South Americans round 6000z, and has heard many. 4XJ can hear the Europeans some mornings, but is the wrong time of the day for him to get on the air. 5MZH has been doing alright with his Type 100. His 20w. has worked K16, K16, VQHJP, VU2AG, 2QZ/8. Over the last 18 months this QRP rig has worked 162 Ws on this band, has had to be hunched in a European. 7RK finds the band fair in the evening for North America, which is in direct contrast to up here. I tried to get through to OAED on 5 Mc, but neither Ray or I heard him, and OAED did not hear me. My others on this band were only VS1CO*, SAZTT, VQHJP, VK1RZ.

11 Mc.: This band has been almost useless up here, but according to 9FN, it's going OK up to Port Moresby, maybe the poor weather conditions of a few months ago in VK9 have drifted south. The Anzac week-end the band was greatly improved. Whether it was a flash in the pan remains to be seen, but I heard him, and OAED did not hear me. My others on this band were only VS1CO*, SAZTT, VQHJP, VK1RZ.

* Ft./Lt. F. T. Hine, No. 10 (G.R.) Squadron, R.A.A.F., Townsville, Queensland.

SOUTH AUSTRALIA

Two excellent pieces of news in the v.h.f. world for this month are the following. One hundred and five miles covered on 288 Mc. by SKC and SRO from Cape Jervis to Kulpura on Easter Sunday, and the news that SBC has won the Ross Cup trophy. Contrasts to the above three for outstanding achievements.

The VK5 Intrastate Contest has finished and looks like a very close one. The winner, it looks like Col SRO being the winner. The Royal Adelaide Exhibition has closed and 6W1 dismantled. Specie's 1000 m. has been recorded to all the operators who gave their time, and especially to 5GL, SHD and 3LW who acted as links on 50 Mc, relaying all contacts to overcome the local interference at the Exhibition, another advert for the v.h.f. gang. With the winter setting in, most chaps are taking the opportunity to overhaul their gear and prepare for the next DX season.—VK5KIL.

WESTERN AUSTRALIA

50 Mc.—SHK and 6GB are reliable. Don 6KH has a new final on the way, a pair of 834s and has had drive on them. 6TR, a new licensee is a welcome addition to the 6 mx fraternity and uses a pair of 6M5s in the final. Unfortunately he hasn't quite enough modulation as yet to do the job, but he has branched out on 28 recently and before the shock had died away opened fire on 50! Nice work, Lou. 6RK and 6GR have been working the 6000z (em) who plotted up the skull-duggery neces-

sary to bring 6LU on six. Roger 6RK is shifting gear (not QTH) and has not been heard too often. His "old faithful" 3 element beam has had to receive a shot of Scotch-scootch tape—to hold it together.

Don 6DW and Blake 6GS have been on holidays, the former to Albany, Manjimup and Perth, Blake to Perth (and to 6BO's place, inevitably). Frank 6FC not heard often. He has apparently a high noise level. You're not alone, Frank. 6HK, 6TR, 6GB and 6BO all complain of the same trouble. Wally 6LW also heard on the band sometimes. 6GB's description was "Spaced Wall 12". Another of Jack's sayings of note—he claims to have "centimetre mosquitoes with dipoles". Rolo 6BO endevours to get a portable TX going for two band operation (7 and 50 Mc.). Uses a 6M5 final and results so far quite pleasing.

144 Mc.—Wally 6AG and Jack 6OR are still good regulars at 8.30 Sunday evenings. 6JS and 6GB also heard, also worked. 6DW, 6GB and 6BO had checks on 144 Mc. converters recently and honours are about in order of call signs given ahead. Rolo sealed up the neutralising on Don's 6J6 to stop him from fiddling! Roger 6RK has a new converter for this band which is very f.b. Also a new TX on the way.

No news at all about 288 Mc. in VK6 this month, chaps.—6BO and 6WZ.

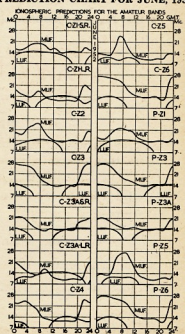
DX C.C. LISTING

Call	No. Ctr.	Call	No. Ctr.
VK3EE	- 10 193	VK8KW	- 4 145
VK4JD	- 1 155	VK1BN	- 11 141
VK4H	- 1 170	VK4FJ	- 21 143
VK3BZ	- 3 154	VK3ED	- 6 126
VK4KS	- 9 152	VK3JE	- 7 123
VK6RU	- 2 149	VK4WJ	- 17 122

Call	No. Ctr.	Call	No. Ctr.
VK3BZ	- 6 200	VK8SA	- 28 150
VK3FH	- 15 177	VK4FJ	- 29 150
VK4H	- 1 170	VK4WJ	- 17 122
VK4EL	- 9 167	VK3QL	- 5 142
VK2EO	- 2 152	VK5KX	- 23 140
VK3CN	- 1 151	VK3CX	- 26 140

Call	No. Ctr.	Call	No. Ctr.
VK3BZ	- 4 213	VK2DI	- 2 170
VK4HR	- 7 200	VK3KX	- 1 167
VK4H	- 8 153	VK4LA	- 10 167
VK3JE	- 12 180	VK4KS	- 24 167
VK4FJ	- 32 173	VK6XO	- 13 165
VK3HG	- 3 171	VK4WD	- 15 157

PREDICTION CHART FOR JUNE, 1952



11 Mc.: Watch this space next month. Unfortunately I will be away for the grand opening on the 1st.

12 Mc.: Two of the gang found this band productive lately. 2TG lists Ws, VK9GV, VP5D, HP38L, HCKRW, HC18S, ZS, VU, PY, KE and M.L. Beckons he can hear five or six any day with his 4 el. beam. He also heard quite a lot of short skip. 4XJ has listed ZL, VK, KHE, W, KW5B*, VE, JA, K6AR*, HC1FS*, HP1JO, KZ5AA. A number of us on this band. 7RK and myself found the band a dead loss.

The QSL situation has not brought much to the fore either. 3CX has them from EK1CW, 6DFRV, VP2MD, FT5TP, OQ6VF. SHI has KB5AA, 151AUK, CR7CK, KJ6AN, YS1O, and 4QL K54AC, Y13DZL, FT5TP, HS1UN, ZE3JP, ZE4JC, ST2GL, OQ5VN.

The "gen" section has had it also. Our wishes regarding the 21 Mc. band have been fulfilled as from May 1. It looks as though we can expect little use from the 7 Mc. band in the mornings from now on. The other morning I counted 16 broad stations between 7100 and 7200 Kc. and one on 7010 and 7038 Kc. VK1RG expects to have a 50 Mc. TX operating by the time you read this and will look for reception reports on 7 and 14 Mc.

Within the next few months there is a possibility I may have to discontinue conducting these notes for a period. Ray 7RK has agreed to carry on with them during that period. I will let all my regular contributors know by letter when to drop their reports for Ray instead of me.

● The thought for the month: "Good hunting on the new 21 Mc. band."

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FEDERAL, QSL, and DIVISIONAL NOTES



Federal President: G. GLOVER (VK3AG); Federal Secretary: G. M. HULL (VK3ZB); Box 2611W, G.P.O., Melbourne.

NEW SOUTH WALES

President: John Moyle, VK2JU.
Secretary: David H. Duff (VK2EO), Box 1734 G.P.O., Sydney.

Meeting Night: Fourth Friday of each month at Science House, Corner Gloucester and Essex Sts., Sydney.

Divisional Sub-Editor: Harry Powell, VK2AYP, 9 Russell Avenue, Wahroonga.

Zone Correspondents: North Coast and Tablelands: Noel Hanson, VK2AHH, Ryan Ave., West Kempsey; Newcastle: Ron McD. Stuart, VK2ASJ, 88 Dunbar St., Stockton; Coffsfields and Lakes: Harry Hawkins, VK3YL, 27 Comfort Ave., Cessnock; Western: W. H. Slitt, VK2IWH, Camblonga, Forbes; South Coast and Southern: Roy Rayner, VK3DO, 42 Pettit St., Yass; Eastern Suburbs: Don Knoch, VK2NO, 42 Yanko Ave., Waverley; Northern Suburbs: Harry Powell, VK2AYP, Russell Ave., Wahroonga; St. George: Chas. Coyle, VK2YK, 84 Carlton Cres., Kogarah Bay.

VICTORIA

President: G. Dennis, VK3TF.
Secretary: L. R. Bradshaw, VK3XK.

FEDERAL

RELEASE OF 21 Mc. BAND

Following on the Editorial in the May issue of "Amateur Radio," all Amateurs have now been officially informed of the changes in the frequency allocations including the implementation of the new 15 Mc. band. At one minute past midnight on the 1st May many VK stations were heard in QSO on the new band. Current conditions on all bands have been seemingly at an all-time "low" which rather gave a bad start to the new band. However, it is yet early to comment on the possibilities of the future of the frequency spectrum until such time as more Amateurs become active on the band, and other overseas administrations implement the frequency allocation.

During the preliminary discussions with the Department on the release of the 21 Mc. band, Federal Executive requested that the authorised types of emissions in the various bands be reviewed in the various bands which we will open up yet wider fields for experimentation.

1952 FEDERAL CONVENTION

Over the Easter recess fourteen official delegates and observers representing every Division of the Wireless Institute in each State of the Commonwealth—sat in conference at the 1952 Federal Convention held this year in Sydney.

By courtesy of the directors of Associated Newspapers Pty. Ltd. and the Editor of "Radio & Hobbies," conference room facilities were made available for the Convention in quiet and pleasant surroundings where delegates could concentrate on the details involved in some seventy-three agenda items, general business items, and a review of policy matters arising from previous Conventions.

Delegate Vaughan Wilson, VK2VW, and observer, John Moyle, VK2JU, ably represented the New South Wales Division in the discussions evolving from the agenda. Members of Federal Executive and some of the Divisional representatives were later entertained at the private residences of Vaughan and John where the hospitality was both spontaneous and sincere. An excellent display of equipment was demonstrated in operation at both stations, in addition to which a pleasant hour of high fidelity reproduction from micro-groove discs was enjoyed at John's home.

Charlie White—delegate from Victoria—with Len Jackson as observer, accredited themselves well at their first Convention, and returned to their Division happy with the knowledge that they had carried out the wishes of the members in this Division.

Arthur Burton, VK4FE, delegate from Queensland, not satisfied with the job he was doing for his Division during the first two days of the Convention, really "got down to it" on the third and fourth days after Ron Hugo from away out west demonstrated how to energise the human mind and body by hypnotism and mesmerism. It was then that Ron Hugo managed to witness Ron at work in this intriguing study of the control of the human mind, voted full marks to Arthur for the sporting fashion in

Administrative Secretary: Mrs. J. Hurley, Law Court Chambers, 191 Queen St., Melbourne.
Meeting Night: First Wednesday of each month at the Radio School, Melb. Technical College.
Zone Correspondents: Western: C. C. Waring, VK3YW, 12 Skene St., Stawell; South Western: K. O'Rourke, VK3AKR, Killigrew, Western; North Eastern: T. K. Tennant, VK3JC, 26 Wilson Ave., Tatura; Far North West: M. Folie, VK3GZ, 101 Lemon Ave., Mildura; Eastern: H. O. Kellas, VK3AHK, Timbarrum; North Western: C. Case, VK3ACE, Cummingham Ave., Birchcop.

QUEENSLAND

President: V. Jeffs, VK4VJ.
Secretary: J. F. Pickles, VK4FP, Box 636J, G.P.O., Brisbane.

Meeting Night: Third Friday in each month at the I.R.E. Rooms, Wickham St., Valley.
Divisional Sub-Editor: A. Guildford, VK4AF, 36 Bramston Cres., Herston, Brisbane.

SOUTH AUSTRALIA

President: E. A. Barbler, VK5MD.
Secretary: G. M. Bowen, VK5XU, Box 1234K, G.P.O., Adelaide.

SILENT KEY

It is with deep regret that we record the passing of—

VK3ZJ—Jim Salmon, 28/4/52.

which he co-operated as the "subject" in letting Ron demonstrate the art of hypnotism to others.

The delegate from South Australia—John Bulling, VK5KX—ably assisted by his observer, Jack Coulter, VK3JD, did some heavy debating on behalf of their Division. John, quietly spoken but forceful, was first introduced to Convention proceedings last year when he represented his Division as observer. Jack, vested with the v.h.f. responsibilities in his Division, made short work of the agenda items dealing with his pet subject.

Ron Hugo, VK6KW, admirably represented the Western Australian Division at his first Convention. Any similarity between the voting procedure adopted by VK4 and VK6 is purely coincidental and has no relationship with the hypnotic spell under which Arthur fell at the mere waving of a key-chain! Mind you, all this hypnotism business was conducted during off-convention-hours and there were plenty of witnesses to see that Ron and Arthur couldn't pull off any coup between them.

Meeting Night: Second Tuesday of each month at 17 Wymouth St., Adelaide.
Divisional Sub-Editor: W. W. Parsons, VK5PS, 10 Victoria Avenue, Rose Park.

WESTERN AUSTRALIA

President: J. Campbell-Watson, VK6JW.
Secretary: H. B. Lang, Box N102, G.P.O., Perth, W.A.

Meeting Place: Perth Technical College Annex, Mounts Bay Road, Perth.

Meeting Night: Second Monday of each month.
Divisional Sub-Editor: R. H. Atkinson, VK6WZ, Box 127, Geraldton, W.A.

TASMANIA

President: R. O'May, VK7OM.
Secretary: F. J. Evans, VK7FJ, Box 371B, G.P.O., Hobart.

Meeting Night: First Thursday of each month at the Photographic Society's Rooms, 163 Liverpool Street, Hobart.

Divisional Sub-Editor: V. Dore, VK7JD.
Zone Correspondents: Northern: C. A. Cullinan, VK7XW, 12 Montrose Place, Launceston; North Western: R. K. Wilson, 4 Menai St., Burnie, Tasmania.

The Tasmanian delegate—Bob O'May, VK7OM—needs no introduction. Bob did a good job, his only complaint being that he was usually the last speaker and by the time his turn came everyone else had stolen his thunder. Despite late hours and tiring work, Bob always managed to awaken the delegates at the boarding-house so they wouldn't miss breakfast and the 8.35 a.m. ferry across the harbour. The only thing about that was the time—6 o'clock!

All in all the Convention was a success and the States had the important opportunity of again getting together to discuss matters concerning Amateurs and Amateur Radio in Australia.

Mention should be made of those who found time to visit the Convention during its sessions. Dave 2BO, Harry 2AYP, Leo 2AC, Wal 2TL, and Ray 2EA, Chairman and Deputy Chairman respectively of the Federal Contest Committee; Lionel 2CS, President of the Hunter Branch of the N.S.W. Division; Arie Bles, PK4DA, of Sumatra, now on his way to the U.S.A.; Jim 2YC, who attended every session of the Convention and entertained delegates and members of the Federal Executive at his home; Morrie 2AAN, and Lyle 2GOW.

Space does not permit of relating all the various interesting sidelights of this, the first Convention to be held in New South Wales, and the first Convention to be held away from Melbourne for many years. Suffice it to say that it was a success, and many matters of policy and interest to Amateur Radio were discussed in a manner that could only be done over the conference table.



W.I.A. 22nd ANNUAL FEDERAL CONVENTION
The 22nd Annual Federal Convention of the Wireless Institute of Australia in session in Sydney during the Easter holidays. Left to right: Miss Grey (Official Stenographer), Max 3ZS, George 3XJ, Vaughan 2VW, John 2JU, Charlie 3AUP, Len Jackson, Arthur 4FE, John 3KX, Jack 3JD, Ron 6KW, Bob 7OM, and George 3AG.

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FEDERAL QSL BUREAU

RAY JONES, VK3RJ, MANAGER

The QSL Bureau for Luxembourg is located as follows: Reseau Luxembourgeois, 40 rue Trevelin, Luxembourg.

Pleased to make acquaintance with Bill Storer, VK1BS, who passed through Melbourne on the way back from Macquarie Island and to the QSL Bureau, and who has carried the full complement of hisrtle ornaments, expects to return on the air shortly following the call VK3GJ. Repertoire of QSLs at Macquarie Island include VK1EM, Eric Macklin, ex-telegraphist of Melbourne, Rob Gurr VK1GJ, ex-VK1KJ and VK1KJ, and the QSL Bureau Journal at the Island extends until April, 1953. Bill K1BBS has 1500 cards printed and will make an attempt on the back log shortly after his return to Sydney.

A new Radio Association has been formed among Amateurs in Holland. The new society, styled "Vereniging Van Radio Zend Amateurs" which means "Dutch Society of Radio Transmitting Amateurs," has its headquarters at Box 180, Groningen, Holland. The President is FANJDK and the Secretary is PAGGN. The reason for the formation of the new body, which is restricted exclusively to transmitting Amateurs, is according to the N.Z.A.A. "the existing society, V.E.R.O.N. (composed of the pre-war transmitting society N.V.I.R. and the pre-war S.W.L. society V.U.K.A.), has turned to the Society of S.W.L. and the professionals of which transmitting Amateurs form only 10% of the total membership, and is not meeting the needs of the amateurs by individuals who are not Amateurs." The V.Z.A.A. also alleges that the N.V.I.R. will only send a card for a QSL if the member has paid and then only against payment." The new body will handle cards for members and non-members alike and the QSL Bureau address is as follows:

VK2AFF, Kevin Brady, of Wollongong, N.S.W., is currently underwriting a radio course at the Melbourne Technical College.

Norm Wadding, ZM6AK/ZL1PT, in a short note accompanying QSLs, says he has over 1,000 cards to send to the QSL Bureau and is literally and actually sweating over the job.

VK4AAK asks VK3AMA to note that his picture will appear in the May or June issue of "CQ."

Related notice of a QRP Contest conducted between 6500-2500 G.M.T. on May 4, by the I.F.F. and the QRP Club, was published. The contest was arranged to show what could be accomplished with a maximum of 10 watts. Any VK who participated in the contest was asked to send the contest is requested to send his report to the usual R.E.F. address, viz.: 72, rue Marceau a Montreuil, Seine, France.

To celebrate the 25th year of its existence the Danish Society E.D.R. is conducting Jubilee celebrations, with various contests during May. They have also introduced a certificate styled the "OZ Cross Country Award." The award is open to all Amateurs in the world, and is based on contacts with most or all of the 25 districts into which Denmark is divided. Contacts since 1st August, 1947, are recognised and one point is given for a contact on 3.5, 14, 17, 21, 28, 35, 41, 49, 56, 63, 70, 81, 89, 97, 108, 117, 129, 149, 160, 177, 189, 213, 225, 249, 273, 297, 321, 345, 369, 393, 417, 441, 465, 489, 513, 537, 561, 585, 609, 633, 657, 681, 705, 729, 753, 777, 801, 825, 849, 873, 897, 921, 945, 969, 993, 1017, 1041, 1065, 1089, 1113, 1137, 1161, 1185, 1209, 1233, 1257, 1281, 1305, 1329, 1353, 1377, 1401, 1425, 1449, 1473, 1497, 1521, 1545, 1569, 1593, 1617, 1641, 1665, 1689, 1713, 1737, 1761, 1785, 1809, 1833, 1857, 1881, 1905, 1929, 1953, 1977, 2001, 2025, 2049, 2073, 2097, 2121, 2145, 2169, 2193, 2217, 2241, 2265, 2289, 2313, 2337, 2361, 2385, 2409, 2433, 2457, 2481, 2505, 2529, 2553, 2577, 2601, 2625, 2649, 2673, 2697, 2721, 2745, 2769, 2793, 2817, 2841, 2865, 2889, 2913, 2937, 2961, 2985, 3009, 3033, 3057, 3081, 3105, 3129, 3153, 3177, 3201, 3225, 3249, 3273, 3297, 3321, 3345, 3369, 3393, 3417, 3441, 3465, 3489, 3513, 3537, 3561, 3585, 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Event of the century—Ernie 2FP came on
40 to QSO Urunga boys; f.b. signal too! Edgar
QMR still a 40 mx regular. Harry 2AFA now
using a 40 mx folded dipole with excellent
results. 2BZ really keen these days and Dave
active on all bands. The Barrington effort has
revived interest in 2 X 2XY quite active
on 144 and Neil busily at 30 S23 for 2X
and 3S3. J. J. converted an AR301 for 2X
and Bill putting it to good use. Bill 2PJ is
building a parallel line osc. for 144. Very pleased

Amateur Radio, June, 1952

...messieurs, I hardly took a trick news. Spoke to President 4VJ and VP about the matter and asked for it to the next Council meeting. I got from my colleagues, now not so sure of the discomfoting words, "You did for it, but no news and you'll get it." So they think. They haven't for the past three weeks down at the Gymnasium, sparring with Elley Len Dittmar.

Starting promptly at 8 p.m. and winding up after a good get-together "chinwag" around 10.30 p.m. the April meeting was held at the home of the contesting members at 10, Wickham Street, Weymouth, and proved quite interesting. The attendance, however, was not as good as that of the previous party. The meeting was taken up with a discussion on VK4 Contest activities, and if the keen interest shown can be taken as a criterion of how much success will be achieved, the contesting members of the Contest Committee are to be congratulated on their efforts in making radio-active those who are not. The discussion was then turned to have been in a state of hibernation. Clive 4CC cleared up a few slightly doubtful points in connection with contest scoring. He declared that the use of a 1000 ohm resistor in place of a single element antennae would apply not only to contestants using dipoles but also to those using a 1000 ohm resistor in place of any number of half waves. A full cover on our contests appears in "ABC" and to that effect the use of the "Q" abbreviation you are directed for the full details.

Federal Councillor, 4FE, gave a resume of what makes the wheels go round at a Federal Convention. Thanks from all present at the meeting for the excellent address, Arthur. Business concluded with several members, namely, 4XL, 4PR, 4JR and 4AP declaring their shacks as "open houses" for visiting Hams, student members, etc. Nice gesture fellas—the true Ham spirit.

45S, well known ardent brass pounder, has renewed his licence and recently embarked on the good ship "Matrimony." Better remember, Alan, the weighty words of advice to all newly marrieds from the faces of one of our worthy VK3 scribes, GAX before the others. "Best of luck in your happy marriage, both of you." Best of luck to you both, Alan and your wife, Margaret. Did Jimmie 4PR tell you about the sweet young thing who, after visiting his Ham station, wondered at what time and over what station the "Amateur Bands" were presented so she might tune in? Secretary John 4FP active on c.w. in intrastate contests; John keeps a record of all intrastate and interstate amplifier tubes. You never know what sort of information you may get in this Ham game.

does not seem to be able to get the same results from a TAIJ. SCI looked in on 3650 KC one Sunday night, pleased to see you Syd. The roll call was good, but I had no idea if there were stations or it becoming quite common. Will be looking for all we can get on in future with the Convention looming up once again. Now back to work. I have been told that I had Nov. 1932, for the Eastern Zone Convention. Results of the zone field day on 8th April are to hand and the winners are as follows: Point-to-Point—JASE; Combined Section—Tedd's has now won three contests in a row. I'm a bit suspicious of him, because he has chased SWQ put in an occasional appearance on a recent hook-up; he proved very useful as a relay station. JASE knocking off the DX party was a surprise. I don't know how, because I can't hear my SWQ any more!

This month brought many surprise to me anyway. 3Jf has been scrounging parts to build a new v.f.o. and had a right royal time. 3Jf's little sick of hatching when he became real hungry, lonesome and his supply of clean shirts was running low. He had to go to the washbasin too, tut, tut, Doug. 3RK visited 3Cf while in the district. The zone picnic took the form of a beam raising expedition for 3CL. 3Cf and 3Jf were the only ones who showed up. 3L was finally erected after which Sid and his XYL entertained a considerable amount of people to afternoon tea which was thoroughly enjoyed. 3Cf and 3Jf were the only ones who did not go. Bob, Gang then took leave and went with 3Jf to the Avenal dome where the gear used to be. 3Cf and 3Jf were the only ones who went with 3ACW who was on duty.

JJC about to dismantle 20 mx beam and reassemble it for 15 mx. Thinks he might get it to work better (he hopes). SUI already on his new band with quite a few contacts to his credit. Heard him disconcert a fellow Ham by saying he had a xtal controlled converter into a tunable I.F. for 40 mx, as casual as if it were an everyday occurrence. Zone hook-up discussed. SUI has a new 100 watt 1600 cycle ham like being held at Tatura sometime in July. Zone correspondent tendered his resignation but judging by the comments it is not going to be easy to get anyone to accept same.

We often record pleasant happenings in these notes, one such was a short visit to the zone by the W.I.A. Secretary, Russell 35K. Russell arrived at short notice, but despite this and the fact that the zone secretary could not be present, a quick round up was made and a meeting arranged at JARL's QTH. 3ACI, 3ME and 3HL came in from Lubech and Callawadda and a pleasant evening eventuated, with subjects of a wide range for discussion. Russell appreciated the gathering and we appreciated the opportunity of meeting him, each, I think, learnt something from the other.

3ACI has been pushing on with 144 Mc. gear; last heard of Charlie had a 4 element beam up and had just about completed tests with it to 3AKW three or four miles away. In the wide flat open spaces of Lubec v.h.f. sigs should get a good kick off. 3ARM has been heard of late putting out a good signal on 3.5 and on 7 Mc.

Our "clamp tube" expert has now decided his modulation was not as good as it was cracked up to be (despite the 4/6 mile), and the 3000 Hz tone is not as good as it was on screen. It's just unusual to hear JARL since rattles and splatter, however Lin still has his troubles. Our nautical operator, one 31Q, when he was in the 3000 Hz band, was a thrill by appearing in full uniform, as 3GN remarks he looks the goods and gets 'em in. He is a 3000 Hz band, and he is a 3000 Hz band, and as the second i.f. is on 110 Kc. it is not much use throwing hi-fi transmissions at him as the said i.f. just chops them off with the 3000 Hz band. The 3000 Hz band is 3ME. Ewen has just lately obtained his Ham ticket, and should be about before these notes appear. Welcome to the very best

During the month of April members showed their interest in the club by good attendances. Some pieces of gear were tendered for by members and competition was keen. The money raised was used to purchase a few more pieces of equipment for the club. Three new members were welcomed by members, they were Messrs. T. Blackney, W. Zimmer and K. Hawkins. A mouse was a long conducted by each member and it was hoped that those taking part will obtain their "ticket" shortly. The lecturer for the evening was Brian ZAOL who chose for his subject, "Improving the Effectiveness of the speech." Clipping, compression and limiting.

John 4RT QSOed a newcomer recently and asked him where he was keying his Tx. Back came the reply "Am keying Tx in my bedroom." 4HD still sits around on 3.5 Mc. Stout 7 Mc. c.w. adherents are 4DO, 9GM, 4AW and 4QL. Still continuing to keep the c.w. portion of the 14 Mc. populated in the VIB area are 4PT and 4XL. John, using 30 watts, gets out nicely, and last time heard Jim he was contacting FB8 for a new country.

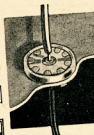
Rumour has it that AHR has hit the double century on the DX C.C. calendar. Better give it up now Tibby. It's not an everyday occurrence to work two 3L c.w.s. ops in a row. This time he was joined by his wife, who had just contacted Madeline CNBCW and Marian W4GTM. Understand 4KW, 4HR, 4ZB and ART quickly broke the ice on the 21 Mc. band. Ted 4MH cut in at 20.7 Mc. and after a few minutes was still active on phone. Bob 4RW puts solid phone signal into Urbanside during 4WI Sunday morning 14 Mc. 4WB, winner of the 400 kHz contest, likely to get 20 from 4FP, 4NG or 4AW. All have high scores. 4FE, 9FN, 4VY, 4KP and 4CC all participants in Sunday's 400 kHz contest. 4CQ, 4RZ and 4RG are working 7Mc. and a temporary antenna "howls" a nice 14 Mc. phone sig down here around 10 p.m. Herd 4ES still inactive; Urungu 4DZ, 4HJ and 4K distance travelled Ham went to Harold, 4DO.

4HZ consistently QSOs Len 2LR at Kyrle.
Neutralisation troubles have put another four
hours in the forehead of Kev 4OR. Harry 4ZP
has been busy overcoming clockwork buzzer
building problems. Kyrle's style is
Better let us know when you crack the bottle
over her Vic. 4NG has a 6 mX converter that
works well. Bob 4NC is more loquacious on 14 Mc.
phone than at Council meetings. Jack 4FJ and
John 4GK are still working on their 7 Mc. rig
on the air. Still doing grand job as master of
ceremonies in 7 Mc. country hook-ups is Tom
4FD. Sunburst and smiling as usual was Eric
4DQ. He had a very relaxing visit to his
his South Coast holiday with family. Must
tell you saw Sam 4CZ few days ago with a
new 800 watt rig. The power supply
sure has some problems down at the power
house—trying to stop Brisbane and environs
from being blacked out as Egypt when Moses
blew the Red Sea out.

Gordon 4XG has installed a tape recorder and now gives a few of the boys an idea of just how the other fellow hears them. The sun is shining brightly, and the birds are singing merrily—no not in the trees—but on the folded dipoles at 4TN's place. He has a farm of "em, and in every direction. 4TN got a shock when he could only hear a VK4 in Gympie off the back of his beam. Maybe he was coming in over the long path Aussie? Would like some news on 50 and 144 Me. doings, so what about it. Russ 4PN, or Bill 4RY?

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Description	Semi Air Spac. Coaxial	Solid Coaxial	Unscreened Tw'n	Screened Tw'n
Overall Size	3/10-inch	3/4-inch	3/18 x 1/8-in.	3/4-inch
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Outer Cover	P.V.C.	P.V.C.	P.V.C.	P.V.C.
Characteristic Impedance	68-78 Ohms	60-74 Ohms	75-85 Ohms	60-75 Ohms
Capacity per 100 Feet	17 pF.	21.5 pF.	18 pF.	24 pF.
Attenuation per 100 Feet—				
1 Mc.	0.2 db	0.4 db	0.5 db	1.2 db
10 Mc.	0.68 db	1.3 db	1.5 db	3.6 db
100 Mc.	2.4 db	4.3 db	5.6 db	—
Loading (Watts in Air) at—				
1 Mc.	1500	1500	1000	500
10 Mc.	500	500	300	150
100 Mc.	120	150	90	—
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Velocity Factor	0.65	0.66	0.66	0.66
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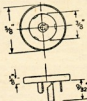
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Test voltage: 1000 D.C.

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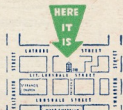
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